REMARKS/ARGUMENTS

Amendments

No amendments are being submitted. However, in the claims enclosed herewith, the reference to claim 2 has been corrected to refer to "previously presented" rather than "withdrawn – currently amended". The Examiner has already proceeded on this basis.

Claim Rejections – 35 U.S.C. 102

The Examiner rejects claim 2 under 35 U.S.C. 102(b) as being anticipated by United States patent U.S. 6,307,984 ("Watanabe"). In response, Applicant respectfully traverses the Examiner's rejection for reasons detailed below.

The Examiner is of the view that Watanabe teaches "a multi-wavelength laser source..." in column 10, lines 62-68. Applicant respectfully disagrees. This portion of Watanabe teaches that "For a light source of the transmitter, two DFB-LDs (distributed feedback type laser diodes) [emphasis added] of the 3-electrodes λ/4 shift type were used." Applicant submits that each distributed feedback laser diode individually is not a multi-wavelength laser source. Applicant notes that Wikipedia, which is an online encyclopedia found at http://en.wikipedia.org, provides the following description of distributed feedback lasers:

> *Distributed feedback lasers (DFB) are the most common transmitter type in DWDM-systems. To stabilize the lasing wavelength, a diffraction grating is etched close to the p-n junction of the diode. This grating acts like an optical filter, causing only a single wavelength* [emphasis added] *to be fed back to the gain region and lase. Thus at least one facet of a DFB is anti-reflection coated. The DFB laser has a stable wavelength* [emphasis added] *that is set during manufacturing by the pitch of the grating, and can only be tuned slightly with temperature. Such lasers are the workhorse of demanding optical communications.*

Since distributed feedback laser diodes generate a single wavelength laser, Applicant submits that a single distributed feedback laser diode in Watanabe is not "a multi-wavelength laser source".

Furthermore, the two laser diodes in combination do not function as a multi-wavelength laser source. Watanabe goes on to teach (col. 10, line 64) that "Time division multiplexed signal light Es (wavelength λs=1,551 nm) of 20 Gb/s was produced by time division multiplexing RZ signals of 2 channels of 10 Gb/s [emphasis added] having a pulse width (FWHM) of approximately 40 ps." However, time multiplexing two single wavelength signals of the same wavelength (λs=1,551 nm) does not result in a multi-wavelength stream. It is not even two different wavelengths, let alone multi-wavelength lasers. Instead, a single wavelength signal is produced. Therefore, the portion of Watanabe referred to by the Examiner does not teach a multi-wavelength laser source.

The Examiner has also referred to Figure 3 of Watanabe as disclosure for "a multi-wavelength laser source...". However, it is respectfully submitted that Figure 3 of Watanabe does not teach or suggest a multi-wavelength laser source. Figure 3 illustrates the transmitter generating the time division multiplexed signal of 20Gb/s as described in column 10, lines 62-68. However, as noted above, this does not teach a multi-wavelength laser source. Watanabe deals with time division multiplexing, which is completely different from WDM (wavelength division multiplexing) of the present application. None of the other components in Figure 3 teach or suggest a multi-wavelength laser source either.

Claim 2 of the present application goes on to recite limitations of the multi-wavelength laser source, which are not found in the disclosure of Watanabe. Specifically, claim 2 recites "the non-linear medium connected to receive the amplified optical signal, and to yield comblike multi-channel WDM laser signals separated from each other by said channel spacing frequency [emphasis added]". Applicant submits that the non-linear medium of the present application is used for wavelength multiplication for yielding "comblike multi-channel WDM laser signals separated from each other by said channel spacing frequency", which is completely different from the approach in Watanabe.

Watanabe teaches in the Abstract that "the total dispersion of the first optical fibre substantially coincides with the total dispersion of the first portion, and the total dispersion of the second portion substantially coincides with the total dispersion of the third optical fibre" and that "by the construction, waveform distortion by chromatic dispersion or nonlinearity is compensated for [emphasis added]". Therefore, Applicant submits that the optic medium in Watanabe is used to reduce or eliminate waveform distortion by compensating for chromatic dispersion or nonlinearity, as it is used in many other fibre based dispersion compensating systems. Clearly this is different from using a non-linear medium to yield "comblike multi-channel WDM laser signals separated from each other by said channel spacing frequency" as defined by claim 2 of the present application.

In view of the foregoing, Applicant submits that claim 2 is novel and inventive over the disclosure of Watanabe. The Examiner is respectfully requested to reconsider and withdraw the rejection of claim 2 under 35 U.S.C. 102(b).

Claim Rejections – 35 U.S.C. 103

The Examiner rejects claims 15, 17-18, 26 and 28-29 under 35 U.S.C. 103(a) as being unpatentable over Watanabe. Applicant respectfully disagrees for similar reasons provided above in respect of claim 2. The Examiner is respectfully requested to reconsider and withdraw the rejection of claims 15, 17-18, 26 and 28-29 under 35 U.S.C. 103(a).

Upon allowance of claim 2 as a generic claim, the Examiner is also respectfully requested to allow the previously withdrawn claims.

In view of the foregoing, early favorable consideration of this application is earnestly solicited.

Respectfully submitted,

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